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10/565,970	11/13/2006	Kazumasa Ito	285074US3PCT	9464

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OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER	
PICO, ERIC E	

ART UNIT	PAPER NUMBER
3654	

NOTIFICATION DATE	DELIVERY MODE
01/02/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

Office Action Summary	Application No.	Applicant(s)	
	10/565,970	ITO, KAZUMASA	
	Examiner	Art Unit	
	Eric Pico	3654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 October 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *7-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *7-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 8 objected to because of the following informalities: the phrase "supported by a second king that is fixed" should read "supporter by a second king pin that is fixed". Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim(s) 7-12, 19-22, 25, and 26 is/are rejected under 35 U.S.C. 102(b) as being anticipated by Eiji JP Publication No. 10-203761.

4. **Regarding claim 7**, Eiji discloses an emergency brake device for an elevator comprising:

5. a brake shoe portion provided inside a sheave 4 of an elevator and having a brake shoe 27, 28 at a lower end of the brake shoe portion,

6. the brake shoe 27, 28 generating a braking force due to friction upon abutting an inner wall 4a of an outer peripheral frame of one the sheave 4 at a time of braking,

7. the brake shoe portion having built therein a spring mechanism, comprised of 25, 26, 29-34, provided between the brake shoe 27, 28 and a king pin 21-24, the king

pin 21-24 extending along an axis that is offset with respect to a centerline passing through a rotation shaft 3 of the sheave 4, and the king pin 21-24 is fixed on a bearing 5 of the rotation shaft 3,

8. the spring mechanism 25, 26, 29-34 having a first end movable supported by the king pin 21-24 and a second end connected to the brake shoe 27, 28, and

9. the spring mechanism 25, 26, 29-34 absorbing a force generated between the brake shoe 27, 28 and the king pin 21-24 due to the braking force.

10. **Regarding claim 8**, Eiji discloses a second spring mechanisms 25, 26, 29-34 having a first end movable supported by a second king pin 21-24 that is fixed to the bearing 5, wherein the king pin 21-24 are offset to be bilaterally symmetrical with respect to the centerline, for braking rotation of the sheave 4 in both directions.

11. **Regarding claim 9**, Eiji discloses the first end of the spring mechanism 25, 26, 29-34 and the first end of the second spring mechanism 25, 26, 29-34 each have a movable support hole 25a, 25b, 26a, 26b that engages with the respective king pin 21-24, the movable support holes 25a, 25b, 26a, 26b being formed as elongated circular holes to allow the brake shoe portion 25, 26 to tilt by a predetermined angle to both sides with respect to the centerline.

12. **Regarding claim 10-12**, Eiji discloses a drive portion 39 fixed on the bearing 5, for raising and lowering the brake shoe portion between a position where the brake shoe 25, 26 at the lower end of the brake shoe portion abuts the inner wall 4a of the outer peripheral frame of one of the sheave 4 and a position where the brake shoe is spaced from the inner wall 4a.

13. **Regarding claim 19**, Eiji discloses an emergency brake device for an elevator having a rotation shaft 3 for a sheave 4, said emergency brake device comprising:

14. a bearing 5 having a receiving portion with an axis, said bearing 5 being configured to rotatably support the rotation shaft 3 within the receiving portion such that the rotation shaft 3 can rotate about said axis of said receiving portions;

15. a pin 21-24 fixed to said bearing 5, said pin 21-24 extending along an axis that is offset from said axis of said receiving portion;

16. a spring mechanism 25, 26, 29-34 having a first end movably supported by said pin 21-24 and a second end; and

17. a brake shoe 27, 28 connected to said second end of said spring mechanism 25, 26, 29-34, said brake shoe 27, 28 being movable between a braking position configured to be in contact with the sheave 4 and a non-braking position configured to not be in contact with the sheave 4.

18. **Regarding claim 20**, Eiji discloses wherein said second end of said spring mechanism 25, 26, 29-34 is slidably movable with respect to said first end of said spring mechanism 25, 26, 29-34, and wherein said spring mechanism 25, 26, 29-34 biases said second end of said spring mechanism away from said first end of said spring mechanism 25, 26, 29-34.

19. **Regarding claim 21**, Eiji discloses wherein said first end of said spring mechanism 25, 26, 29-34 has an elongated support hole 25a, 25b, 26a, 26b, and wherein said pin 21-24 is movably received within said elongated support hole 25a, 25b, 26a, 26b.

20. **Regarding claim 22**, Eiji discloses a drive portion 39 fixed to said bearing 5, said drive portion 39 being configured to move said brake shoe 27, 28 being between said braking position and said non-braking position.

21. **Regarding claim 25**, Eiji discloses a second pin 21-24 fixed to said bearing 5, said second pin 21-24 having an axis that is offset from said axis of said receiving portion; and

22. a second spring mechanism 25, 26, 29-34 having a first end movably supported by said second pin 21-24 and a second end,

23. wherein said brake shoe 27, 28 is connected to said second end of said second spring mechanism 25, 26, 29-34.

24. **Regarding claim 26**, Eiji discloses wherein said second end of said second spring mechanism 25, 26, 29-34 is slidably movable with respect to said first end of said second spring mechanism 25, 26, 29-34, and wherein said second spring mechanism 25, 26, 29-34 biases said second end of said second spring mechanism 25, 26, 29-34 away from said first end of said second spring mechanism 25, 26, 29-34.

Claim Rejections - 35 USC § 103

25. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

26. Claim(s) 13-18, 23, and 24 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over Eiji JP Publication No. 10-203761 in view of Ito U.S. Publication No. 2004/0262091.

27. **Regarding claim 13-15**, Eiji discloses the drive portion 39 is an electric drive portion; and

28. the emergency brake device for an elevator further comprises:

29. an emergency brake driving section for imparting a signal to the drive portion 39 to cause the brake shoe portion 27, 28 to abut the inner wall 4a of the outer peripheral frame of the sheave 4.

30. Eiji is silent concerning the emergency brake device for an elevator further comprises: a speed abnormality detecting section for detecting an abnormality based on a status of a control command to a car of the elevator from an elevator control device and on actual movement of the car; and an emergency brake driving section for imparting a signal to the drive portion to cause the brake shoe portion to abut the inner wall of the outer peripheral frame of one of the sheave and the deflector sheave upon detecting an abnormality.

31. Ito teaches a drive portion is an electric drive portion 11; and

32. an emergency brake device for an elevator comprises:

33. a speed abnormality detecting section for detecting an abnormality based on a status of a control command to a car 3 of the elevator from an elevator control device and on actual movement of the car 3, [0032]; and

34. an emergency brake driving section for imparting a signal to the drive portion to cause a brake shoe portion 16 to abut a guide rail 6 upon detecting an abnormality, [0037].

35. It would have been obvious to one of ordinary skill in the art at the time of the invention to further comprise the emergency brake device disclosed by Eiji with a speed abnormality detecting section for detecting an abnormality based on a status of a control command to the car from an elevator control device and on actual movement of the car as taught by Ito to facilitate the actuation of the drive portion during abnormal movement of the car.

36. **Regarding claim 16-18**, Eiji is silent concerning a speed abnormality detecting section determines that an abnormality has occurred upon detecting at least one of the following conditions: (1) the car is moving upwards at a speed higher than a rated speed; (2) the car has moved upwards or downwards even though a status of a control command to the car indicates stoppage.

37. Ito teaches the speed abnormality detecting section determines that an abnormality has occurred upon detecting at least one of the following conditions: (1) the car is moving upwards at a speed higher than a rated speed; (2) the car has moved upwards or downwards even though a status of a control command to the car indicates stoppage, [0032].

38. It would have been obvious to one of ordinary skill in the art at the time of the invention to further comprise the emergency brake device disclosed by Eiji with a speed abnormality detecting section for detecting an abnormality based on a status of a control

command to the car from an elevator control device and on actual movement of the car as taught by Ito to facilitate the actuation of the drive portion during abnormal movement of the car.

39. **Regarding claim 23 and 24**, Eiji discloses wherein said drive portion 39 is an electric drive portion, said emergency brake device further comprising:

40. an emergency brake driving section configured to impart a signal to said electric drive portion 39 to cause said brake shoe 27, 28 to move to said braking position.

41. Eiji is silent concerning a speed abnormality detecting section configured to detect an abnormality based on a status of a control command to a car of the elevator from an elevator control device and based on actual movement of the car;

42. wherein said speed abnormality detecting section determines that the abnormality has occurred upon detecting at least one of the following conditions: the car is moving upwards at a speed higher than a rated speed; and/or the car has moved upwards or downwards even though the status of the control command to the car indicates stoppage

43. Ito teaches an electric drive portion 11, said emergency brake device further comprising:

44. a speed abnormality detecting section configured to detect an abnormality based on a status of a control command to a car 3 of the elevator from an elevator control device and based on actual movement of the car 3, [0032]; and

45. an emergency brake driving section configured to impart a signal to said electric drive portion 11 to cause a brake shoe 16 to move to said braking position upon detection of the abnormality by said speed abnormality detecting section, [0037];

46. wherein said speed abnormality detecting section determines that the abnormality has occurred upon detecting at least one of the following conditions: the car is moving upwards at a speed higher than a rated speed; and/or the car has moved upwards or downwards even though the status of the control command to the car indicates stoppage.

47. It would have been obvious to one of ordinary skill in the art at the time of the invention to further comprise the emergency brake device disclosed by Eiji with a speed abnormality detecting section configured to detect an abnormality based on a status of a control command to a car of the elevator from an elevator control device and based on actual movement of the car as taught by Ito to facilitate the actuation of the drive portion during abnormal movement of the car.

Response to Arguments

48. Applicant's arguments filed 10/09/2007 have been fully considered but they are not persuasive.

49. In response to applicant's argument, "the Eiji reference does not disclose a spring mechanism that has a first end movably supported by a king pin and a second end connected to a brake shoe" Eiji discloses a spring mechanism, comprised of brake shoes 25, 26, attaching parts 29, 30, and springs 31-34, that has a first end movably

supported by a king pin, referred to as support point rods 21-24, and a second end connected to a brake shoe, referred to as braking members 27, 28.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

50. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Pico whose telephone number is 571-272-5589. The examiner can normally be reached on 6:30AM - 3:00PM M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Cuomo can be reached on 571-272-6856. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EEP

SAUL RODRIGUEZ
SUPERVISORY PATENT EXAMINER